Production Of Propionic Acid From Syngas

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**Project Report Outline**

1. **EXECUTIVE SUMMARY**
   1. Abstract
2. **DISCUSSION** 
   1. **Process Overview**
      1. Hydrocarbonylation of Ethylene
      2. Oxidation of Propionaldehyde
3. **CONCLUSIONS AND RECOMMENDATIONS**
4. **Appendices**
5. Design Basis
   * 1. Commercial Production
     2. Environmental Review
     3. Specifications to Meet Industry Standards
     4. Clear Statement of Feedstock
     5. Engineering Design Standards
6. Block Flow Diagram
7. Process Flow Diagram
8. Material and Energy Balances
9. Calculations
10. Annotated Equipment list
11. Economic Evaluation factored from equipment cost.
12. Utilities
13. Conceptual control Scheme
14. General Arrangement (Plant Layout)
15. Distribution and End- Use Issues review
16. Constraints Review
17. Feedstock Definition
18. Conversion Technology Description
19. Separation Technology Description
20. Production Description
21. Location Sensitivity Analysis
22. ESH Law Compliance
23. Laws of Physics Compliance
24. Turndown Ratio
25. Applicable Standards
26. Project Communications
27. Information Sources and References